DOCUMENT RESUME

ED 230 636 UD 022 785

TITLE	Project Esperanza. E.S.E.A. Title VII Annual Evaluation Report, 1981-82.
INSTITUTION	New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
PUB DATE	82
NOTE	31p.; For related document, see ED 218 398.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Achievement Gains; Bilingual Education Programs; *Bilingual Teachers; Cultural Awareness; Diagnostic Teaching; Disabilities; Elementary Secondary Education; English (Second Language); Limited English Speaking; Mathematics Achievement; Parent Participation; *Program Effectiveness; Reading Achievement; Resource Materials; Spanish Speaking; *Special Education Teachers; *Staff Development
IDENTIFIERS	New York City Board of Education

ABSTRACT

Project Esperanza, a staff development effort, was designed in order to supplement the basic educational program for handicapped students with limited English proficiency in New York City Schools. The project served the teachers of 458 students in elementary, intermediate, and secondary schools, and provided (1) staff training and consultation; (2) materials development, identification, and evaluation; (3) educational diagnosis and instructional strategies, (4) direct individualization of instruction; and (5) outreach services. Evaluation of the program's second year of operation, based on data from pupil achievement measures, program records, and interviews and observations, showed that: (1) the program objectives for English and Spanish reading, oral English proficiency, mathematics, and cultural heritage were met for all grade levels; (2) the objective for teacher training was attained; but that (3) the objective for parent involvement could not be realized. Recommendations contained in this evaluation include more recruitment of qualified bilingual special education teachers, continued efforts to develop appropriate curriculum materials and assessment instruments, and stronger efforts to generate more parental involvement in the project. (AOS)

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ANNUAL EVALUATION REPORT

E.S.E.A. TITLE VII

5001-27607

PROJECT ESPERANZA

1981-82

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A SUMMARY OF THE EVALUATION OF THE 1981-82 TITLE VII PROJECT ESPERANZA

Project Esperanza supplemented the basic special education program for handicapped students with limited English proficiency (L.E.P.) by providing (1) staff training and consultation, (2) materials development, identification, and evaluation, (3) assistance in the diagnosis of educational needs and the prescription of instructional strategies, (4) direct individualization of instruction, and (5) outreach services.

During 1981-82, the program's second year, 458 students were served in 30 elementary, intermediate, and secondary schools. Project staff included a project coordinator, a curriculum specialist, two resource specialists, four educational assistants, two family assistants, and an administrative office aide.

The analysis of data from pupil achievement measures, program records, and interviews and observations by an Office of Educational Evaluation consultant, lead to the overall conclusion that Project Esperanza again provided an effective, comprehensive program of supplementary services that promoted the academic development of handicapped L.E.P. students.

All of the program objectives for pupil achievement were attained; the proposed criteria were met in English and Spanish reading, oral-English proficiency, mathematics, and cultural heritage. The elementary-level population demonstrated larger gains than the middle- or high-school students in Spanish reading, mathematics, and cultural heritage. The high-school students showed significantly larger gains in oral-English proficiency than the elementary- or middle-school students.

The project objective for teacher training was also attained. In response to participation in teacher workshops, the classroom teachers demonstrated proficiency in developing individual instructional objectives as the focus of a diagnostic-prescriptive teaching approach.

Despite repeated and varied efforts by project staff, the objective for parent involvement was not attained. It is noteworthy, however, that relative to many other projects for similar populations, a moderate degree of parent participation was achieved.

The following recommendations are aimed at improving the overall effectiveness of this program: continue to recruit qualified bilingual special education teachers; continue efforts to identify or develop appropriate curriculum materials and assessment instruments; and continue efforts to involve parents of project students.

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FREQUENCY DISTRIBUTION OF THE NUMBER OF CULTURAL HERITAGE OBJECTIVES MASTERED BY PROGRAM STUDENTS

I. INTRODUCTION

This report presents the findings of the evaluation of the second year of Project Esperanza, funded under E.S.E.A. Title VII. This program provided supplemental instruction, staff training, resource assistance, and out-reach services to support the special education program for handicapped Spanish-speaking pupils with limited English proficiency (L.E.P.).

Project Esperanza was designed to assist the Division of Special Education (D.S.E.) of the New York City Public Schools in effectively meeting the educational needs of special education L.E.P. students who had not previously been served in a Title VII bilingual special education program. Population projections based on a census by D.S.E. estimated that, by 1983, the number of handicapped L.E.P. students in the New York City Public Schools would increase to approximately 10 thousand. To provide appropriate educational services for this population, D.S.E. marshalled efforts to identify these students and dramatically increase the number of self-contained, bilingual, special education classes. Project Esperanza's mission was to provide comprehensive supplementary services to assure the quality of the expanding bilingual special education program.

In 1980-81, its first year of operation, Project Esperanza served approximately 300 students whose basic educational program was provided in 25 bilingual special education classes in 20 schools. All of the program objectives for pupil achievement were attained; the proposed criteria were met in English and Spanish reading, oral-English proficiency, mathematics, and cultural heritage. The high school-level population demonstrated larger gains than the elementary- or middle-school students

in Spanish reading, mathematics, and cultural heritage; however, the high school students also showed a higher rate of truancy. The elementary-school students showed significantly larger gains in oral-English proficiency than the middle or high school students.

The project objective for teacher training was also attained. In response to participation in teacher workshops, the classroom teachers demonstrated proficiency in developing individual instructional objectives as the focus of a diagnostic-prescriptive teaching approach. Despite repeated and varied efforts by project staff, the objective for parent involvement was not attained. However, relative to many other projects for similar populations, a moderate degree of parent participation was achieved. Moreover, project staff elicited the aid of the National Origin Desegregation Assistance Center in promoting parent involvement.

Project Esperanza for 1981-82 was evaluated by the Office of Educational Evaluation (O.E.E.) through the collection and analysis of data from (1) pupil achievement tests, (2) program records of parent participation and staff training, and (3) interviews and observations concerning the level and quality of program implementation. The following chapters present the findings of the evaluation. Chapter II provides a description of the program and the evaluation of program implementation; Chapter III addresses the level of attainment of program objectives; and Chapter IV presents conclusions and recommendations.

II. EVALUATION OF PROGRAM IMPLEMENTATION

DESCRIPTION

Project Esperanza supplemented the basic special education program for handicapped L.E.P. students by providing (1) staff training and consultation, (2) materials development, identification, and evaluation, (3) assistance in the diagnosis of educational needs and the prescription of instructional strategies, (4) direct individualization of instruction, and (5) outreach services.

In the project's second year of operation the basic educational program was again provided in self-contained classes staffed by tax-levy teachers in the ratio of one teacher to 12 students. The target population had never been served by other D.S.E. Title VII or Chapter 720 programs. Participating students were either recently identified as handicapped L.E.P. students or drawn from a waiting list. Program referrals were made by school-based support teams, Committees on the Handicapped, special-class and crisis-intervention teachers, and school clinical staff.

Pupil-centered objectives of the program focused on gains in reading in English and Spanish, mathematics, oral English-language competeance, and cultural heritage. Other program objectives were to promote the involvement of parents in the educational program and imporve the instructional skills of classroom teachers.

The program was comprised of four principal components: direct pupil instruction; resource services; staff development; and parent involvement. The following sections present the findings of observations and interviews conducted by O.E.E. at 17 project sites to document overall program implementation.

LEVEL OF IMPLEMENTATION

During the 1981-82 school year, Project Esperanza served 458 students, a substantial increase over the expected population of 311. Participating students attended 44 bilingual special education classes in 30 schools located in Manhattan, the Bronx, Brooklyn, and Queens; the average class register was 12. Although it was designed to serve elementary, intermediate, and junior high schools, program sites also included four high schools and an Occupational Training Center.

The project staff, who were all funded under a Title VII grant and, for the most part, were initially hired during the first program cycle included: a project coordinator, who supervised and coordinated the overall organization and implementation of the program and was responsible for fiscal management; two resource specialists, who assisted the classroom teachers in pre- and post-testing, instructional planning, materials identification and utilization, demonstration of classroom instruction, and helped conduct workshops for participating teachers, paraprofessionals, and parents; four educational assistants, who assisted teachers in materials preparation and individual and small-group instruction; two family assistants, who provided outreach services for the students and their families; and an administrative office aide for clerical support. In addition, a curriculum specialist was hired whose major responsibility was the development of curriculum materials and relevant behavioral objectives.

DIRECT INSTRUCTION

The project's four itinerant educational assistants helped provide individual and small-group instruction and develop instructional materials in classes that were not served by tax-levy educational assistants.

The importance of individualization of instruction for the educational success of target students was apparent from the classroom observations which revealed a wide range in students' academic abilities and levels of bilingualism, i.e., proficiency in English and Spanish. The resource specialists also played a crucial role in individualization of instruction by training and monitoring the activities of the educational assistants and classroom teachers. (The work of the resource specialists is described further in the next section of this report.)

Observations at 17 project sites revealed that, in almost all cases, the classroom environments were carefully planned for individualized learning . Aesthetic, well-organized bulletinboards displaying program materials, samples of students' work in both English and Spanish, and classroom rules posted in both languages contributed to a positive educational atmosphere. In most classrooms, the stable, organized, and task-oriented atmosphere provided a secure and comfortable learning environment with a minimum of distraction.

Daily lessons covered the major content areas outlined in the program proposal, i.e., Spanish and English reading, oral-English proficiency, mathematics, and cultural heritage. Individualization of instruction was promoted through the organization of classrooms into learning centers, the development of individualized activities, and the use of an instructional model known as the Workshop Way. A number of elementary and intermediate classrooms observed used this last model which assigns students daily task categories, such as problem solving, for independent work. Teachers program the specific activities for each student and display the Workshop categories on large cards in the sequence in which they are to be taken up.

The Workshop Way method appeared highly suitable for individualization in the self-contained classroom and teachers reported that it instilled confidence and the ability to work independently. Both the learning center approach and the Workshop Way had the added benefit of allowing the teacher and paraprofessional to spend more time with students in need of closer guidance and personal attention.

The overall instructional approach observed in most classrooms was diagnostic-prescriptive; that is, the individual strengths and weaknesses of students were diagnosed through criterion-referenced testing with instruction prescribed accordingly.

Although the program provided an abundant supply of instructional materials, the heterogeneity in students' skills, and the limited number of commercially-available curriculum materials for bilingual special education students necessitated the preparation of teacher-made or -adapted materials. The resource and curriculum specialists trained classroom teachers and educational assistants in the development of instructional materials to meet the students' individual educational needs.

RESOURCE SERVICES

The resource specialists trained and assisted the classroom teachers and educational assistants and played an important role in providing on-site support. They made weekly site visits to monitor classroom management and the educational process. During these regular visits, the need for materials was assessed and, as a result, most sites were well equipped with audiovisual and other teaching equipment. In addition, the resource specialists helped administer and interpret diagnostic tests,

demonstrated methods of individualizing instruction, and helped implement small-group instruction.

A resource that was new to the program in 1981-82 was a comprehensive, program-developed Latin American cultural mini-curriculum.

STAFF DEVELOPMENT

Although the resource specialists had primary responsibility for ongoing training of teachers and educational assistants, the project coordinator also visited all sites to monitor inservice training and classroom instruction. In addition, program and tax-levy staff participated in two full-day training workshops. One workshop presented the program-developed Latin American heritage mini-curriculum and included training in the history, geography, cultures, and cuisines of the region, as well as relevant materials and assessment strategies. At the end of the session, participants completed evaluation forms on which they rated the workshop objectives, activities, materials, and presenters. Over 80 percent of the 43 participants responded with "superior" or "excellent" to all of the 12 questions asked.

The other workshop provided intensive training in the criterion-reference tests used to establish instructional baselines and assess student progress. Tests covered were the Leamos Spanish Developmental Reading Test, the Prescriptive Reading Inventory, and the Diagnostic Mathematics Inventory.

PARENT INVOLVEMENT

Parent involvement in the program was promoted through a series of workshops, a parent advisory council, and the activities of family workers. Staff

interviews and program records indicated that substantial efforts were made to secure parent participation; as in the previous program cycle, all parents of program students were individually invited to attend the workshops through letters, phone calls, and, where necessary, home visits by family workers. Despite this and the parents' expressed receptivity to the concept of parent training, attendance remained low. At the same time, communication was established with many families enabling parents and staff to exchange information on student needs.

In addition to encouraging parent involvement, the family workers provided outreach services by linking families of program students with various social agencies. The family workers received referrals for intervention from classroom teachers, resource specialists, and principals. Most of these referrals involved health problems, truancy, welfare assistance, or disciplinary problems.

III. EVALUATION OF THE ATTAINMENT OF PROGRAM OBJECTIVES

Project Esperanza was designed to attain seven program objectives: five specifying pupil achievement, one related to parent participation, and another for the mastery of teaching skills in response to staff development. Because of the individualized nature of the program, instruction varied according to student's needs. Consequently the numbers of students for whom achievement data were reported and analyzed differed among content areas. The following sections present the objectives of the program, the methods of evaluation, and the findings, preceded by an empirical description of the student population.

DESCRIPTION OF THE POPULATION

Classroom teachers reported descriptive, attendance, and achievement data for 458 students on O.E.E.-designed data-retrieval forms. Achievement data were incomplete for 121 students for the following reasons: 37 (8.1 percent of the population of 458) were frequently absent or truant; 27 (5.9 percent) were discharged to other programs on schools; and 57 (12.4 percent) were late admissions for whom there were no baseline data.

Students ranged in age from seven to 19 years; the mean age was 12.2 (S.D. = 2.9). One-half (53.3 percent) of the students were in elementary schools, 28.8 percent were in intermediate and junior high schools, and 17.9 percent were in high schools and Occupational Training Centers. Nearly three-fourths (74 percent) of the students were classified as learning disabled and were served in Health Conservation-30 classes. The remainder of the population was classified as follows: 19 percent educable

mentally retarded; five percent neurologically impaired and emotionally handicapped; two percent emotionally handicapped.

All students entered the program during the 1981 fall term; 397 or 87 percent in September, 50 or 11 percent in October, and the remaining 11 pupils in November. The number of sessions attended ranged from a minimum of 40 to a maximum of 180. The mean number of sessions attended, at the rate of five sessions per week, was 119.4 (S.D. = 40.8); the median was 131. The mean percentage attendance was 82 percent (S.D. = 16.9).

A breakdown of attendance by school level showed similar patterns of attendance for elementary school students (M = 120.4, S.D. = 37.8), intermediate and junior high school students (M = 122.3, S.D. = 42.4), and high school students (M = 111.6, S.D. = 46.1).

OBJECTIVE 1. ENGLISH-READING MASTERY

An objective of Project Esperanza was to promote mastery of skills in English reading by those students who demonstrated the ability to profit from instruction in English as a second language. Specifically, the objective proposed that by June 15, 1982, 70 percent of the participating students receiving instruction in English, would master four new reading objectives, as measured by the Prescriptive Reading Inventory (P.R.I.). The P.R.I. measures skills in the areas of readiness, phonology, structural analysis, and comprehension. Test administration was ongoing, i.e., each student was tested immediately after instruction in a specific skill.

To determine whether the objective was attained, a frequency distribution of the number of skills mastered by students receiving English-

TABLE 1

Frequency Distribution of Mastery of Objectives in English Reading[a]

Number of Objectives Mastered	Number of Students	Relative Percent	Cumulative Percent
7 or more	8	6.6	6.6
6	14	11.8	18.4
5	46	38.7	57.1
4	41	34.5	91.6
3	5	4.2	95.8
2	4	3.4	99.2
1	1	0.8	100.0
	119		

[a]Measured by the Prescriptive Reading Inventory.

.Over 91 percent of the students mastered four or more English reading skills. Accordingly, the criterion of 70 percent was exceeded.

reading instruction was prepared. According to these data, which are presented in Table 1, 109 or 91.6 percent of the 119 students receiving English instruction attained the four-skill criterion; the mean was 4.8 (S.D., = 1.3) and the mode was five skills. Accordingly, the objective for English reading mastery was attained.

A further analysis of the types of objectives mastered indicated that phonology accounted for more than one-half (51 percent) of the objectives attained by all students, comprehension for 21 percent, readiness for 16 percent, and structural analysis for 12 percent.

Analyses of mastery of English reading skills for students within each program level indicated that proportionally fewer intermediate and junior high school students attained the four-skill criterion. Specifically, 62 out of 65 (95 percent) of the elementary students and 25 out of 26 (96 percent) of the high school students mastered four or more new skills but only 22 out of 28 (79 percent) of the intermediate and junior high school students did so.

There was a weak but statistically significant relationship between the mastery of English reading skills and program attendance ($r = .15$, $p = < .05$). However, for the intermediate/junior high school students this relationship was moderately strong. The Pearson product-moment correlation coefficient between number of skills mastered and number of sessions attended was statistically significant ($r = .57$, $p < .01$). The percentage of shared variance was 33 percent. Accordingly, gains in English reading appeared to be related to program attendance for these students.

OBJECTIVE 2. SPANISH-READING MASTERY

The program objective in Spanish reading stated that by June 15, 1982, 70 percent of the participating students receiving instruction in Spanish would master four skills. The objective was measured through ongoing administration of the Spanish Developmental Reading Program (Lemos).

Table 2 presents the frequency distribution of the number of Spanish-reading skills mastered by program students. Mastery ranged from a minimum of one objective (12 students) to a maximum of 19 objectives (3 students). The mean was 5.9 (S.D. = 3.3) with a median and mode of 4 skills. More than 91 percent of the 310 students instructed in Spanish reading attained the four-skill criterion. Accordingly, the objective was attained.

To determine whether the program had a differential effect upon student mastery of Spanish-reading skills by school level, the percentage of students attaining the four-skill criterion was determined for the elementary, middle, and high school populations. In Spanish reading 159 of the 166 elementary students (96 percent) and 92 of the 99 intermediate and junior high school sudents (93 percent) met the four-skill criterion but only 32 out of the 45 (71 percent) of the high school students did so. Nonetheless the overall objective was attained.

To measure the relationship between instruction and Spanish-reading-skills mastery, a Pearson product-moment correlation coefficient was computed between the number of objectives mastered and the number of program sessions attended. The observed correlation was statistically significant ($r = .28$, $p < .01$). Eight percent of the variance in the

TABLE 2

Frequency Distribution of the Number of Spanish-Reading Skills Mastered by Program Students[a]

Number of Objectives Mastered	Number of Students	Relative Percent	Cumulative Percent
12 or more	21	6.7	6.7
11	18	5.8	12.5
10	12	3.9	16.4
9	11	3.5	19.9
8	13	4.2	24.1
7	9	2.9	27.0
6	18	5.8	32.8
5	56	18.1	50.9
4	126	40.6	91.5
3	4	1.3	92.8
2	10	3.2	96.0
1	12	3.9	99.9[b]
	310		

[a]Measured by the Leamos Test of Spanish Reading.

[b]Less than 100 percent due to rounding error.

More than 91 percent of the students mastered at least four new skills. Accordingly, the 70 percent criterion was exceeded.

number of Spanish-reading objectives mastered was accounted for by program attendance. However, for the high school student group, the observed correlation ($r = .82, p < .01$) indicated a strong relationship between the two stated variables; over 67 percent of the variance in achievement was accounted for by program attendance.

OBJECTIVE 3. MASTERY OF MATHEMATICS SKILLS

The mathematics objective of Project Esperanza stated that by June 15, 1982, 70 percent of the participating students would demonstrate mastery of four of the selected math objectives which they had not mastered by September, 1981. The objective was measured through ongoing administration of the Diagnostic Mathematics Inventory (D.M.I.).

Table 3 presents a frequency distribution of the number of D.M.I. skills mastered by the project students instructed in mathematics. Data were reported for 397 students. Mastery ranged from a minimum of one skill mastered (20 students) to a maximum of 12 new skills (two students). The mean was 4.6 (S.D. = 1.8) and the median and mode were four skills. Over 83 percent of the students attained the four-skill criterion. Accordingly, the objective was accomplished.

Analyses of the percentage of students within school level that attained the four-skill criterion indicated consistent levels of achievement across groups. The criterion was attained by 83 percent of the elementary school students, or 176 out of 212, 85 percent of the middle school students, or 96 out of 113, and 81 percent of the high school students, or 58 out of 72.

Almost half (43 percent) of the skills mastered by all students were

TABLE 3

Frequency Distribution of the Number of Mathematics Skills Mastered by Project Students[a]

Number of Skills Mastered	Number of Students	Relative Percent	Cumulative Percent
8 or more	24	6.1	6.1
7	16	4.0	10.1
6	38	9.6	19.7
5	97	24.4	44.1
4	155	39.0	83.1
3	29	7.3	90.4
2	18	4.5	94.9
1	20	5.0	99.9[b]
	397		

[a]Measured by the Diagnostic Mathematics Inventory.

[b]Less than 100 percent due to rounding error.

.Over 83 percent of the students who received instruction in mathematics attained the four-skill criterion; the proposed value of 70 percent was surpassed.

basic computation operations of addition, subtraction, multiplication, and division of whole numbers. Preoperational concepts such as counting and matching accounted for approximatly 10 percent of all objectives mastered, 8 percent were in functional math including concepts of money, time, and temperature. The remaining objectives were distributed among a number of assessment areas including fractions, geometry, measurement, number theory, and place value.

There was a weak but statistically significant relationship between the mastery of math skills and program attendance ($r = .27$, $p < .01$). However, for the high school group, this relationship was particulary strong as indicated by a Pearson product-moment correlation coefficient of .77 ($p < .01$) between number of skills mastered and number of sessions attended. For the high school group attendance accounted for 59 percent of the variance in math mastery and thus, gains in mathematics skills appeared to be related to program attendance for this group.

OBJECTIVE 4. ORAL-ENGLISH PROFICIENCY

An objective of Project Esperanza proposed that participating students would demonstrate statistically significant growth ($p < .05$) in oral English. The objective was measured by comparisons of English-language samples taken during the fall and spring semesters. The samples consisted of the students' oral-English productions in response to the presentation of pictorial stimuli that related to the program's curriculum. Stimuli were presented individually until ten sentences were produced. The average sentence length of these productions was scored in T units according to a technique adapted from the Basic Inventory of Natural Language

(B.I.N.L.). The mean pre- and post-test scores were compared through a *t* test for correlated samples; scores were reported for 335 students. The average pre-test score was 5.5 T units (*S.D.* = 2.1) and the average post-test score was 6.5 T units (*S.D.* = 2.3). The mean gain of 1.0 T units was statistically significant ($t = 7.94$, $df = 334$, $p < .01$). Accordingly, the objective was met.

To determine whether the gains in English-language scores differed significantly among students grouped by school level, a one-way analysis of covariance was applied to the post-test means by school level, controlling for differences in pre-test means. (See Table 4.) A significant main effect was observed for school level ($F = 3.8$, $df = 331$, $p < .05$); that is, significant overall differences were observed in the adjusted mean post-test oral-English scores among students grouped by school level. To determine which specific school levels differed significantly, post-hoc individual comparisons were applied to each pair of adjusted post-test means using the Newman-Keuls procedure. (See Table 5.) The adjusted post-test mean for the high school students ($M = 7.81$) was significantly higher, at the .01 level, than those for the elementary school and middle school students ($M = 6.09$ and $M = 6.37$, respectively). The adjusted means for the latter two groups did not differ significantly. Thus, the gains in oral-English proficiency demonstrated by the high school students were significantly higher than those shown by the elementary and middle school students.

OBJECTIVE 5. MASTERY OF CULTURAL HERITAGE CURRICULUM

The fifth pupil objective stated that by June, 1982, 70 percent of the participating students would demonstrate mastery of four objectives

TABLE 4

Analysis of Covariance for Post-Test English-Language Scores by School Level[a]

Source of Variance	D.F.[b]	M.S.[c]	F
Covariates			
Pretest Language Score	1	397.7	100.3**
Main Effect			
School Level	2	15.1	3.8*
Residual	331	4.0	
Total	334	5.2	

*$p < .05$
**$p < .01$

[a]The covariate was pre-test language scores.

[b]Degrees of freedom

cMean square

.After controlling for the effects of the pre-test scores, the differences in mean post-test English-language proficiency scores among the three school levels were significant.

TABLE 5

Individual Comparsion[a] of Adjusted English-Language Post-Test Means[b] Between School Levels

		Elementary School	Middle[c] School	High[d] School
	Means[e]	6.09	6.37	7.81
Elementary School	6.09	---	0.28	1.72**
Middle School	6.37		---	1.44**
High School	7.81			---

**$p < .01$

[a]Newman-Keuls procedure.

[b]The numbers of students within school level were as follows: 182 elementary, 99 middle school, 54 high school.

[c]Included junior high schools and intermediate schools.

[d]Included Occupational Training Centers.

[e]Adjusted for differences in pretest scores.

.The adjusted means in oral-English proficiency exhibited by the high school students were significantly higher than those for the elementary and middle school students.

.The adjusted means shown by the elementary and middle school groups did not differ significantly.

of the cultural heritage curriculum. This objective was measured by a locally-developed cultural heritage assessment instrument. This criterion-referenced instrument was designed to measure mastery of specific skills in four cultural heritage curriculum areas: map skills, vocabulary, history, and holidays. In each of these areas two specific skills were examined. Accordingly, the instrument was comprised of eight items. Two levels of the test were constructed: elementary and intermediate. The content validity of the instrument was demonstrated by the judgment of program personnel and D.S.E. staff that the items related to and thoroughly sampled the content of the program's cultural heritage curriculum. Test administration occurred in May, 1982; scores were reported for 383 students.

Table 6 presents the frequency distribution of the number of cultural heritage objectives mastered by the target population. Mastery ranged from a minimum of one skill (two students) to a maximum of eight skills (80 students or 20.9 percent of the population). The mean was 5.6 (S.D. = 1.6) and the mode four. The criterion of four skills was attained by over 96 percent of the students. Thus the proposed value of 70 percent was surpassed.

Analyses of mastery of skills for each cultural heritage area indicated that 82 percent of the students mastered at least one map objective, 83 percent mastered at least one vocabulary objective, 69 percent mastered at least one history objective, while only 47 percent mastered at least one objective in the area of holidays.

Analyses of the percentage of students within school level that attained the four-skill criterion revealed that over 90 percent of the students at

TABLE 6

Frequency Distribution of the
Number of Cultutal Heritage Objectives
Mastered by Program Students[a]

Number of Skills Mastered	Number of Students	Relative Percent	Cumulative Percent
8	80	20.9	20.9
7	49	12.8	33.7
6	44	11.5	45.2
5	97	25.3	70.5
4	99	25.8	96.3
3	9	2.3	98.6
2	3	0.8	99.4
1	2	0.5	99.9[b]
	383		

[a]Measured by locally-developed cultural heritage assessment instrument.

[b]Does not sum to 100 percent due to rounding error.

.More than 96 percent of the students tested mastered at least four skills; the proposed value of 70 percent was surpassed.

each level attained the objective. Although some differences in attainment were observed, these were not meaningful variations in achievement.

OBJECTIVE 6. PARENT INVOLVEMENT

The program objective for parent involvement was that by June 1982, 50 percent of the parents of participating students would take part in two activities for parents.

Program records were maintained of all parent activities conducted by or promoted by the program and the level of parent participation. The parent activities conducted by the project included workshops, Parent Advisory Council meetings, luncheons, exhibitions of student work, and individual conferences to discuss pupil programs. In addition, the project staff attempted to increase parent involvement in mainstream school activities, such as open house, and special education activities, such as individual educational program (I.E.P.) conferences.

Inspection of the program records indicated that the program conducted a total of 10 separate activities for parents during the 1981-82 school year. The average parent attendance was 7.1. Across all parent activities, both program-conducted and program-promoted, a total of 36 parents attended at least one activity, representing 7.9 percent of the target students. Of these, only 12 parents (2.6 percent) attended more than one activity, well short of the criterion of 50 percent. Accordingly, the objective was not attained.

OBJECTIVE 7. STAFF DEVELOPMENT

As part of its staff development component, project personnel conducted workshops for both program staff and tax-levy classroom teachers to

develop their skills in special and bilingual education. The specific objective of this component was that by June, 1982, 80 percent of the participating teachers would demonstrate mastery of one teaching skill per training session. To measure this objective, the goal of each training session was stated as a performance objective; that is the skill to be mastered was stated in observable, measurable terms with the conditions and criterion unambiguosly specified. Teacher mastery of these objectives was determined by the workshop leader (usually the project coordinator) in an all-or-none fashion.

Project staff conducted two teacher-training workshops between November 1981 and June 1982. The mean attendance was 27.5 teachers. The topics covered were: student assessment procedures and an explanation of the program's newly developed cultural curriculum. A review of program records indicated that the training objective was mastered by an average of 92.7 percent of the attending teachers; 28 out of 30 teachers or 93.3 percent mastered the objective for the first workshop and 23 of 25 teachers or 92 percent mastered the objective for the second workshop. Accordingly, the objective criterion of 80 percent was surpassed.

IV. CONCLUSIONS AND RECOMMENDATIONS

The analyses of data from pupil achievement measures and program interviews and observations lead to the overall conclusion that Project Esperanza, in its second year of operation, continued to provided an effective, comprehensive program of supplementary services that has promoted the academic development of handicapped L.E.P. students. In its second year the program served 458 students in 44 bilingual special education classes in 30 schools.

All of the program objectives for pupil achievement were attained; the proposed criteria were met in English and Spanish reading, oral-English proficiency, mathematics, and cultural heritage. The elementary-level population demonstrated larger gains than the middle or high school students in Spanish reading, mathematics, and cultural heritage. The high school students showed significantly larger gains in oral-English proficiency than the elementary or middle school students.

The project objective for teacher training was also attained. In response to participation in teacher workshops, the classroom teachers demonstrated proficiency in developing individual instructional objectives as the focus of a diagnostic-prescriptive teaching approach. Despite repeated and varied efforts by project staff, the objective for parent involvement was again not attained.

Observations and interviews revealed that program staff have successfully met the challenge of individualizing instruction for a heterogenous population faced with the double burden of overcoming their physical, mental, and/or emotional handicaps and limited proficiency in English.

Many of the teachers and paraprofessionals who provided direct service to students demonstrated initiative and competence in preparing or adapting special materials for instruction and in varying instructional techniques to suit the individual learner's needs.

To enhance the sizable gains observed thus far for the target population, the following recommmendations are offered.

- Continue to recruit and place qualified bilingual special education teachers.

- Due to the paucity of appropriate standardized tests and materials for bilingual special education students, future project proposals should consider allocating funds for the specific purpose of identifying, adapting, or creating appropriate curriculum materials and evaluation instruments.

- Continue to identify, develop, and standardize new tests and procedures for measuring language development for special education students with limited English proficiency.

- Continue efforts to involve parents of project students in instructional workshops and other school-related activities.